Data Collection

Kevin Porter Exeter

Data Needed for Study

- Mesomodeling Phase
 - Wind speed measurements
 - Solar insolation measurements
 - Wind plant historical generation
 - Solar plant historical generation
 - Future wind site information
 - Future solar site information

Data Needed for Study (2)

- Preliminary Analysis Phase
 - Load forecast data day-ahead
 - Load forecast data hour-ahead (optional)
 - Hourly Load data
 - 10-minute Load data (optional)
 - Hourly Hydro historical generation
 - 10-Minute Hydro historical generation (optional)
 - Identify Hydro units that provide regulation
 - Identify Pump loads/deferrable loads

Data Needed for Study (3)

Simulation Phase

- Load data (specific 3-hour blocks during 2004-2006 to be determined)
- Production simulation data for WECC heat rates, fuel type, emission rate (WECC?)
- Maneuverability and constraints for existing generators
 ramping, min/max, start/stop capability (utilities)
- Transmission expansion and generation resource scenarios (WECC?)
- Generation retirement scenarios, generation & transmission expansion plans, load growth (WECC?)
- Planned generation installation and retirement through 2020 (WECC?)
- Transmission load flows (WECC)
- Hoover Dam info

Mesomodel Data Status

Wind Speed Measurements	Colorado, Wyoming, New Mexico, Arizona
Solar Insolation	Richard Perez
Wind Historical Generation	PNM, Xcel ('04)
Solar Plant Historical Generation	Tucson, SRP, PNM, coming from APS
Future wind sites	B&V report, PNM, Nevada
Future solar sites	B&V report, BLM report

Preliminary Analysis Phase

Load Forecast – Day Ahead	PNM, SRP
Load Forecast – Hour Ahead	Xcel ('04)
Hourly Load Data	PNM, SRP, APS, Xcel, Nevada Power, SPPC, El Paso
10 Minute Load Data	No data yet
Hourly Hydro Generation	SRP, Xcel (monthly)
10-Min Hydro Generation	No data yet
Hydro – Regulation	No data yet
Pump/deferrable loads	El Paso